

REMARKS

The Office Action mailed on May 19, 2004 has been carefully considered and the Examiner's remarks are appreciated. Claims 1-65 are pending in the application. Claims 7, 21, 30, and 34-65 are withdrawn from consideration. And claims 18-20, 22, 24, and 25 are allowed. Therefore, claims 1-6, 8-17, 26-29, and 31-33 are presented for examination. Applicants respectfully request reconsideration in view of the following remarks.

Discussion of the Office Action

In the Office Action, the Examiner rejected Applicants' arguments for traversal of the restriction requirement of March 23, 2004. The Examiner also rejected claims 1-4, 8-10, 15-17, 226, 27, and 31-33 under 35 U.S.C. §102(b). And the Examiner objected to claims 5, 6, 11-14, 28, and 29 as being dependent upon a rejected based claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and intervening claims. Applicants, however, have not adopted the Examiner's suggestion at this time pending continued prosecution of the underlying rejected base and intervening claims.

Discussion of the Restriction Requirement

In response to the restriction requirement mailed March 23, 2004, Applicants elected Group I, claims 1-6, 8-20, 22-29, and 31-33, and traversed with respect to the restriction between Groups I and II. In the Office Action mailed on May 19, 2004, the Examiner rejected Applicants' traversal arguments as moot, "*...because the apparatus can be used to practice another materially different process such as a process that uses an etch solution having an etch rate that does not increase with temperature*" (emphasis added). It is respectfully submitted that the Examiner's new ground for restriction is improper for reasons similar to those previously presented in Applicants' first attempt at traversal. In particular, the type of etchant solution, i.e. one "having an etch rate which increases with temperature", is a substantive limitation of the means plus function language of claim 34 enabling the

imagewise etching functionality of the substrate in a parallel process. Therefore, and contrary to the Examiner's suggestion, the apparatus of claim 34 cannot be used to practice his suggested alternative process without destroying the functionality and utility of the invention because the ability to differentially control etch rates in the local regions would be lost.

Discussion of the Rejections Under 35 USC §102(b)

The Examiner rejected claims 1-4, 8-10, 15-17, 26, 27, and 31-33 under 35 U.S.C. §102(b) as being anticipated by U.S. Pat. No. 4,904,340 to Micracky et al (hereinafter "Miracky"). It is respectfully submitted, however, that the rejection of these claims are inappropriate in view of MPEP §2131 as follows in part:

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference"

Independent claim 1, includes the step of *"generating a local thermal gradient in each of a plurality of selected local regions of a boundary layer of the etchant solution to imagewise etch the substrate surface in a parallel process."* It is important to note that the *"to imagewise etch"* phrase is a substantive limitation, as discussed at length in the Applicants' Response of April 23, 2004, with the term *"imagewise"* defined in paragraph 20 of page 7 of the Specification as follows:

"...It is appreciated that the term "imagewise" describes a parallel process where etching takes place concurrently or simultaneously at a plurality of local target regions of the substrate surface, similar to the use of a branding iron."

Notwithstanding the above description, the Examiner stated, *"the limitation of generating a local thermal gradient in each of a plurality of selected local regions of a boundary layer of the etchant solution is inherent in the method of Miracky since Miracky heats a plurality of regions on the substrate, which are in direct contact with the etchant solution."* The Examiner further stated, *"It is clear from Fig. 5, for example, that the substrate is imagewise etched in a parallel process as broadly defined by applicant."* It is respectfully submitted, however, the Examiner erred in his reading of the Miracky reference with respect to imagewise etching. Miracky does not in fact teach or suggest imagewise etching in a parallel process, using instead a serial etching process. Support for a serial etching process is found in column 5, lines 56-61 of Miracky as follows:

"By displacing the laser beam or the workpiece, the chemical etching occurs on the workpiece selective along the path of displacement of the laser beam relative to the workpiece. Thus, an etching pattern is defined by the size of the beam and the path of displacement."

And displacement of the laser beam is performed by a translation stage, described in column 8, lines 42-45 as follows:

"A computer-controlled X-Y translation stage was used to translate and position the sampled relative to the fixed laser beam."

It is clear from these passages in Miracky that etch patterns are created on a substrate surface corresponding to and determined by the displacement path of the laser beam (a

serial activity), which is antithetical to the parallel or "imagewise" etching process of the present invention. Therefore, the 102(b) rejections of claims 1-4, 8-10, 15-17, 26, 27, and 31-33 should be withdrawn.

Summary

Applicants therefore respectfully submit that claims 1-6, 8-17, 26-29, and 31-33 are in condition for allowance (in addition to already allowed claims 18-20, 22, 24, and 25), and request allowance of claims 1-6, 8-17, 26-29, and 31-33. In the event that the Examiner finds any remaining impediment to the prompt allowance of these claims that could be clarified with a telephone conference, he is respectfully requested to initiate the same with the undersigned at (925) 422-7274.

Respectfully submitted,

Dated: 8-19-2004

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